



The Virginia Tech Center for Human-Wildlife Conflict Resolution

Statement of Mission, Goals, and Objectives

January 2005*

Background

Localities in Virginia increasingly are being challenged with problems associated with overabundant wildlife. Species of concern include indigenous wildlife, invasive and/or exotic wildlife, and feral animals. As the human population continues to expand, especially into rural areas, these problems likely will become more common. These animals can cause damage to personal or corporate property (e.g., residential and commercial structures and associated landscaping; crops; vehicles) and to other wildlife populations and the habitat they require. As well as transmit diseases such as Rabies, Lymes Disease, West Nile Virus and Avian Flu. Although the numbers in Virginia so far thankfully are low, human deaths have resulted from deer/vehicle collisions. Successful management of nuisance wildlife problems is complicated particularly because it is so difficult to achieve consensus for action among all stakeholders.

In early 2004, the Conservation Management Institute (CMI) began collecting information pertaining to problematic wildlife and sought recommendations from individuals directly involved with these issues in the Commonwealth. A brief needs assessment was conducted, which then led CMI to hold the first ever coordination meeting of representatives from state and federal wildlife agencies, municipal governments, and non-government organizations in Charlottesville, VA, in June 2004. Following is a brief synopsis of findings from this assessment and the coordination meeting.

Homeowners, landowners, businesses, and government agencies in Virginia currently have several options for obtaining assistance in planning and implementing a nuisance wildlife management program. Private companies are available and ready to provide information or physically remove troublesome animals, but they typically do not assist with the collection and analysis of data, preparation of comprehensive management plans, or the implementation of education programs. Further, their services often are limited only to urban centers; private sector assistance for rural residents generally is lacking.

The Virginia Department of Game and Inland Fisheries (VDGIF) has qualified biologists stationed in every region of the Commonwealth to assist localities plan for and comply with state regulations pertaining to the management of wildlife. Although staff biologists are ably qualified to design and help a community implement a comprehensive nuisance wildlife management program, such demands are only one of many services they are

responsible for; it is unlikely that a biologist has time available to assist every jurisdiction in their service area simultaneously. Biologists and wardens typically do not perform on-site services for constituents (e.g., capture and removal of nuisance wildlife).

The U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services Division (USDA-APHIS-WS) provides contract-based, on-site, technical assistance to businesses, municipalities, and commodity producers who experience problems with certain wildlife species. Employees also conduct educational outreach programs and distribute resource materials to constituents. However, USDA-WS typically will not conduct on-site assistance for homeowners.

Although the Virginia Cooperative Extension Service has trained field agents stationed in each county or incorporated city, their specialty area may not be in natural resources. Therefore, agents rely heavily upon one Wildlife Extension Specialist located at Virginia Tech for assistance with wildlife-related issues. In addition to satisfying the needs of agents, this individual has been helping localities develop and implement nuisance wildlife programs (e.g., deer management programs in Blacksburg and the City of Roanoke). At the same time, this individual is tasked with developing educational resource materials on other wildlife-related topics for the public, which reduces time available to assist numerous communities.

Each county and many municipalities have defined Animal Control Divisions staffed with officers who provide assistance on individual problems involving companion (domestic) animals, but most employees are not properly trained nor do they have legal authority to handle wildlife problems. Additionally, these individuals have little time available to conduct outreach and education efforts.

There is little question that nuisance wildlife problems currently exist, and various agencies and businesses are trying to address these issues. However, there currently is no coordination among the various service providers. Animal control officers, game wardens, private nuisance wildlife control operators, and USDA-WS staff lack effective communication and there often are disagreements regarding interpretation of regulations and selection and use of appropriate methodology. Further, outreach and education efforts often are not coordinated and research needed to find more efficient methods of dealing with problems in Virginia is scant. The feral companion animal issue is complex, emotion-laden, and has real implications for wildlife populations, but animal control officers primarily can respond only to specific complaints about animals from homeowners rather than address the larger problem. Especially problematic invasive species issues receive quick response (e.g., snakehead fish), but other, less prominent problems, particularly on private lands, do not. The time for a focused, coordinated effort to address problem wildlife has arrived, and we believe this mission can best be handled by the land-grant university in Virginia, Virginia Tech.

Center Established

The **Center for Human-Wildlife Conflict Resolution** was established at Virginia Tech in 2004 to provide much needed services to constituents of Virginia. The Conservation Management Institute (CMI), a research center in the College of Natural Resources at Virginia Tech and the Virginia Cooperative Extension Service are uniquely qualified to address these multi-discipline natural resource problems. The Center will bring science, information technology, and human dimensions together to help resolve difficult problems. CMI previously has conducted projects throughout North America that address landscape ecology, education, outreach, and the application of information technology, all elements that would be useful in developing new approaches to nuisance wildlife problems in Virginia. Virginia Cooperative Extension brings decades of service and unmatched experience in providing constituents with relevant education opportunities, resources, and unbiased information.

Initially, the Center will attempt to resolve human-wildlife conflicts by first identifying and focusing on factors related to human populations that contribute to or drive problems associated with wild animal populations. Perceptions about a problem often drive the selection of alternatives considered as appropriate management actions and thus delimit the possible outcomes. Emphasizing the need to base management decisions upon the concept of “cultural carrying capacity” (i.e., the number of animals in any one area that society can tolerate, as determined by a combination of biological factors in conjunction with economics and concerns about public safety) rather than biological factors alone will produce more realistic expectations among the public. There remains a need for enhanced education on life history and ecology of affected species, concepts of habitat manipulation, and the implications of human activities on habitat change.

This Center will be directed by Dr. Jim Parkhurst, Associate Professor of Wildlife Science and Wildlife Extension Specialist in the Department of Fisheries and Wildlife Sciences at Virginia Tech. The Center will be staffed by biologists, public affairs specialists, and students at Virginia Tech. This Center specifically will focus on the following:

1. Coordination

As discussed at the first Nuisance Wild Animal Symposium in June 2004*, no single agency or organization has been granted legal authority or assumed complete responsibility to respond to the management needs pertaining to problematic wildlife in Virginia.

For example:

The Virginia Department of Game and Inland Fisheries is the agency charged with legal authority over non-migratory game and non-game species of wildlife in the Commonwealth. The agency's stated viewpoint of their responsibilities related to wildlife conflicts, as they are defined in the Code of Virginia, is that the agency will:

- 1) where appropriate, let nature take its course,
- 2) establish season and bag limits for species under their control that are realistic and attempt to achieve balance between protecting sustainable population growth and minimizing conflicts,
- 3) issue "take" permits on a case by case basis,
- 4) assist municipalities in managing problematic wildlife (as promulgated in legislation such as House Bill 54), and
- 5) establish a program to register and certify commercial nuisance wildlife control operators.

The U.S. Department of Agriculture, Wildlife Services Division, provides technical on-site assistance with problem wildlife, as allowed under existing federal policy, to state and local governments, private commercial enterprises, and private landowners. This agency also provides assistance to federal agencies to help control and prevent disease caused or carried by wildlife.

The U.S. Department of Interior, U.S. Fish and Wildlife Service, has legal authority over migratory game and non-game species and federally-listed threatened or endangered animals.

Local Governments and Municipalities, in conjunction with the Virginia Department of Game and Inland Fisheries, can develop and implement set management practices that comply with regulation.

County and City Animal Control Officers possess authority to respond to and exercise control in situations involving domestic and/or companion animals.

Virginia Cooperative Extension has no legal authority or a mandate to perform on-site control operations; the mission of Extension is to provide educational and professional training programs and to develop and disseminate educational resource materials to state government, local municipalities, and private citizens of the Commonwealth.

Private/commercial businesses have no legal authority to set policy or regulation, but do implement control practices, as allowed by existing law.

Recommended Action

Given that there presently is no operational protocol in existence that lays the groundwork for or mandates coordination among the various parties involved in or responsible for managing the Commonwealth's wildlife, it is difficult for municipalities,

individuals, and organizations to obtain consistent, reliable information on regulations and best management practices or techniques to manage problematic species. We therefore propose that the Center will:

- become the agent to schedule regular coordination meetings among all parties to discuss day-to-day field operations
- establish a concise and consistent statement of purpose
- seek ways to complement or enhance the effectiveness of all practitioners while reducing duplication of effort and costs.
- prepare a periodic newsletter to keep partners, cooperators, agency personnel informed on the status of the activities of the Center.

2. Information Transfer

The actions of the Center in no way will interfere with or disrupt the activities of agencies or private business operators as they handle individual cases. However, we will help residents and municipal leaders identify potential sources of assistance when confronted with problematic wild animal problems. Information will be made available to the public and localities through a dedicated website maintained by the Center. We also propose to investigate the feasibility and cost-effectiveness of establishing a toll-free informational “hot line” telephone service (similar to the *511 service currently provided by the VA Department of Transportation). In addition to the list of service providers, the proposed web site will become a repository for state-of-the-art information on best management practices, life history and ecology accounts of common “problem” species, and sources of materials used to minimize conflicts with wildlife. This web site will provide quick access to timely resources and management recommendations to resolve problems with wildlife in Virginia.

Recommended Actions

- Establish an operational web site to serve as the clearinghouse for information pertaining to all aspects of nuisance wildlife management
- Investigate the development of an informational telephone “hotline” for residents of the Commonwealth

3. Research

Investigating or devising improved techniques and developing new strategies and options for landowners and local governments to use when dealing with nuisance wildlife problems will be an important component of the Center’s mission. Fruitful topics in need of addition research include greater understanding of the public’s motivations, perceptions, tolerances, and resistance to change related to problem wildlife; medical and behavioral aspects associated with wildlife transmitted or communicable disease; contraception and sterilization as applied to free-roaming wildlife populations; and the effects of feral animals on resident wildlife populations. The bulk of recent research efforts has tended to focus on methods to reduce numbers of problematic animals. In addition, current definitions of what constitutes a “nuisance” are subjective, and research

that helps clarify perceptions of nuisance wildlife would be a high priority. Therefore, research conducted at the Center will focus initially on the human dimensions of human-wildlife conflicts, and especially the concept of “cultural carrying capacity” of problematic species. Municipalities that have begun to implement a nuisance wildlife program most likely did not do so as a result of a nuisance population reaching some predetermined limit. More often, these plans arise in response to high numbers of complaints and calls for action from constituents. Species considered to be problematic often are classified as such purely on public perception. Research has indicated that where public attitude can be changed and cultural carrying capacity thresholds are raised, localities actually experience a decline in nuisance wildlife complaints.

Recommended Actions

- Conduct needs assessment to determine the most pressing research needs in the Commonwealth
- Investigate new opportunities for research funding in areas of greatest need

4. Training

Based on a preliminary needs assessment conducted with participants of the Nuisance Wild Animal Symposium held in June 2004, there are very clear needs in Virginia for additional professional development opportunities and increased public awareness on nuisance wildlife issues. These needs exist within 3 specific audiences: 1) day-to-day practitioners and other “first responders” directly involved in the handling of problematic wildlife, 2) decision-makers and/or individuals who develop and implement policy that deals with problematic wildlife, and 3) individuals who interact with or disseminate information to members of the public who experience problems with wildlife.

The Center plans to develop and conduct credit-bearing professional development training workshops for practitioners who address nuisance wildlife problems daily. These courses will address regulatory issues, new state-of-the-art capture or handling techniques, and other topics designed to keep professionals at the top of their game.

The second training thrust of the Center will be to provide municipal leaders and those responsible for determining policy with up-to-date information, situation background and analysis, and socioeconomic tools that they need to establish effective nuisance wildlife policy or plans. Potential content areas for these workshops may include assessment and understanding of public perception and reaction, effective public forum techniques, state and federal wildlife regulations, public education, and current management options.

The Center’s third training emphasis will target individuals who directly interact with the public on nuisance wildlife issues. Because no one agency in the state currently has sole responsibility for nuisance wildlife, constituents often do not know where to direct questions or complaints about problems they may be experiencing. Oftentimes that individual contacts several state agencies or offices in the local government with hope of

finding an answer to their problem. The intent of this training effort would be to properly prepare “first responder” individuals who receive the initial complaint on where to direct callers to receive specific answers for their problem and to help ensure that all constituent needs are met in a timely manner.

Because training on nuisance wildlife issues currently is a low priority among local governments and state agencies, there are few individuals in the state who are properly trained to deal with such human-wildlife conflicts or their resolution. The Center will address this training void and provide workshops on priority issues identified in the needs assessment.

Recommended Actions

- Develop targeted professional development training opportunities to address nuisance wildlife management.

Center Funding

The Center for Human-Wildlife Conflict Resolution will be supported with funds derived from grants and contracts, in-kind contributions, and resources provided by state and local sources. We anticipate an annual budget of approximately \$250,000.

Products

During the Center’s first year, the following deliverables are expected:

1. Assemble an advisory board comprised of key representatives from state and/or federal agencies, local governments, the private sector, and non-government organizations to assist the Center in identifying priority issues and establishing operational goals and objectives (*completed—see attached list of Advisory Board members*);
2. Conduct at least one initial statewide coordination meeting among state and federal agencies, municipalities or local governments, non-government organizations, and private nuisance wildlife management businesses (*completed—Advisory Board convened first meeting on July 11, 2005, in Charlottesville, VA*);
3. Development and implementation of a web site that consolidates, organizes, and disseminates reliable information from all cooperators on procedures, regulations, and techniques to address nuisance wildlife problems (*in progress*);
4. Design and conduct a detailed needs assessment of homeowners, landowners, and municipal leaders to more accurately determine the scope and severity of human-wildlife conflicts, specific education needs, and current resources available to resolve such problems (*to be initiated in Fall 2005*).